

Human rights group condemns UN in Rwanda

Doctors, schoolteachers, and priests were directly involved in carrying out massacres in Rwanda, says the first substantive report on the killings, published last week by a respected human rights organisation. The 422 page report, by African Rights, contains interviews with eye witnesses of the genocide that took place during April and May this year (see personal view on p963).

African Rights documents how, after President Juvenal Habyarimana was assassinated on 6 April, hundreds of thousands of Tutsis were murdered by their Hutu neighbours. The report states that, far from being a sudden act of tribal violence, the genocide was orchestrated by the government and ignored by the international community. The United Nations, it says, failed to take a "moral lead" in stopping the killing.

Most people were killed in massacres that took place in hospitals, schools, and churches across the country. Their killers used hand grenades, guns, machetes, and masus (big clubs studded with nails). In almost every massacre investigated by African Rights, survivors told of militia returning the next morning to kill the wounded. Tens of thousands of people who escaped massacres were subsequently shot or killed with machetes on the road or as they hid in bushes.

"Nothing, not even a previous visit to Somalia, prepared me for the situation in Rwanda," said Rakiya Omaar, the author of the report. "There were men made to kill their own brothers, mothers who were forced to kill their infant sons. I can understand how ordinary people who were literally forced to take part in this genocidal frenzy could do what they did, but I cannot understand the people who carried it out."

There were no places of safety for Tutsis and moderate Hutus, who were dragged out of hospital beds and Red Cross ambulances and killed. Médecins sans Frontières, a medical charity, pulled out of the University Hospital in Kigali after its patients kept disappearing. According to the testimony of Dr Claude-Emil Rwagaconza, a Rwandan, some doctors colluded with the government forces and militia, forcing patients out of the hospital to their deaths. "The extremist doctors were also asking patients for their identity cards before treating them," he said. "They refused to treat sick Tutsis. Also, many people were coming to the hospital to hide. The extremist doctors prevented many of these people from hiding in the hospital."



A father buries his son in Rwanda

An attack on a hospital in Kibeho was assisted by a doctor, who was seen directing the militia into the hospital and disconnecting the power supply so that the lights went out. Some of the most horrific massacres occurred in maternity clinics, where people gathered in the belief that no one would kill mothers and newborn babies. When people from African Rights visited the maternity clinic in the parish of Rukara they saw the bodies of many tiny babies and heard eye witness accounts of massacres of young children by militia who murdered with machetes.

"There have been many massacres in the world, but what sets Rwanda apart is that they happened in such a short space of time and they were so intimate," said Ms Omaar. "Doctors have sometimes participated in human rights abuses, but here it was so apparent."

Andrew Carney, of Physicians for Human Rights spent two weeks taking testimonies from over 100 people in Rwanda. "People were operating in an ethical vacuum," he said. "The head of the Rwandan Patriotic Front's human rights commission said that he wasn't surprised that doctors put politics before ethics. But he did find it surprising that priests stood by during the killings."

The report is published at a time when the UN's response to Rwanda is being criticised as being in disarray. "The greatest lesson here is that all the signs were apparent to the international community but that there was a failure of leadership," said Ms Omaar.

"If there had been consistent, eloquent statements from leaders condemning the killers and making it clear that there was nowhere on earth that they could hide then the confidence of the genocidal regime would have been lost and hundreds of thousands of lives would have been saved."

There are concerns that the UN has so far failed to launch a comprehensive inquiry into human rights abuses. Its rapporteur for human rights in Rwanda resigned publicly last month, complaining of inaction. The UN High Commissioner for Refugees has also come under attack from aid agencies for reporting from its office in Geneva that the new government forces—the Rwandan Patriotic Front—have been systematically murdering Hutus. The allegations, although discredited by the rest of the UN, including the commander of the UN peacekeeping forces in Rwanda, are likely to deter refugees from returning home.

"Our perspective is that unless there is significant movement on the issue of human rights and the instigators of genocide are brought to justice, refugees will not have the confidence to return home," said Ian Bray of Oxfam. "The UN has requested 147 peace monitors in Rwanda—one for each commune—but so far only 26 are in place. Monitors are urgently needed in every commune to tell the people that the world is watching."—LUISA DILLNER, *BMJ*

Rwanda: Death, Despair and Defiance is available from 11 Marshalea Road, London SE1 1EP, price £15.

Headlines

French ex-ministers charged in contaminated blood case: The French former prime minister, Laurent Fabius; the former social affairs minister, Georgina Dufoix; and the former health minister, Edmond Herve, have been charged with poisoning in connection with blood contaminated with HIV being given to people with haemophilia. More than 1200 people became HIV positive after officials allowed blood to be circulated despite knowing that it was contaminated.

US tobacco firm may leave New York: The American tobacco company Philip Morris is threatening to move its headquarters out of New York because the city council is preparing legislation to extend smoke free areas.

BMA rejoins World Medical Association: The BMA has been readmitted to the World Medical Association after voting to rejoin at its annual meeting earlier this year. At the annual assembly in Stockholm last month, Nigeria, Latvia, and Mexico also joined the WMA.

More US students turn to primary care: There has been an upsurge in interest in primary care among medical school graduates in the US, according to a survey by the Association of American Medical Colleges. Similar trends are found in surveys of new medical students and of residents, who have increasingly chosen family practice.

US states favour health reform: Although there is unlikely to be national legislation on President Clinton's health reforms this year, some states in the US are planning to expand health coverage to the many people not covered by the Medicaid programme.

WHO sets out Rwanda's health priorities: The World Health Organisation says that the three greatest health priorities in Rwanda are the early identification and control of epidemic outbreaks, the rapid re-establishment of safe blood transfusion services to prevent the spread of HIV, and the procurement and rational distribution of essential drugs and vaccines.

Surgeon jailed for infecting patients

A surgeon infected with hepatitis B virus who lied about his condition and knowingly put hundreds of patients at risk was jailed for a year last week, in a case that made legal history. Umesh Gaud, aged 41, of Bethnal Green, east London, pleaded guilty at Southwark Crown Court in London to the common law charge of causing a public nuisance. The closest precedent is thought to be the prosecution of a woman for wheeling her baby, infected with smallpox, through the streets in 1815.

Dr Gaud, who was educated in Calcutta, falsified his curriculum vitae to secure jobs at the Royal London and London Chest Hospitals and submitted patients' blood instead of his own when required to undergo tests. He also worked in several locum posts at hospitals in London and the south east.

Dr Gaud carried out cardiothoracic surgery for more than three years, "while deliberately suppressing the fact that he was infected by the hepatitis B virus and was a carrier of a particularly infectious strain," according to the prosecution. Twenty four patients contracted hepatitis B, although there is no conclusive proof that he was to blame.

Sentencing him, Mr Justice Blofeld said that there had been "a real risk" of infection, which Dr Gaud had been prepared to take. The judge told him that he had behaved deceitfully and deplorably, adding: "What you did was a terrible thing for a doctor to do. The message must be made loud and clear: that if doctors behave in this way they must go to prison."

Dr Gaud, who was struck off by the General Medical Council last December, learnt in 1990 while working as a senior house offi-

cer at Killingbeck Hospital, Leeds, that he was a carrier of hepatitis B virus. He was advised to leave but applied for a post as a senior house officer at the Royal London Hospital, falsifying his curriculum vitae to make it appear that his previous job had been in Calcutta.

After locum jobs at St Bartholomew's and St George's Hospitals in London he became a registrar in cardiothoracic surgery at the London Chest Hospital in 1992 after lying about his job history and claiming to have been vaccinated against hepatitis. When the hospital asked him to provide a blood sample for routine screening he produced blood taken from a patient.

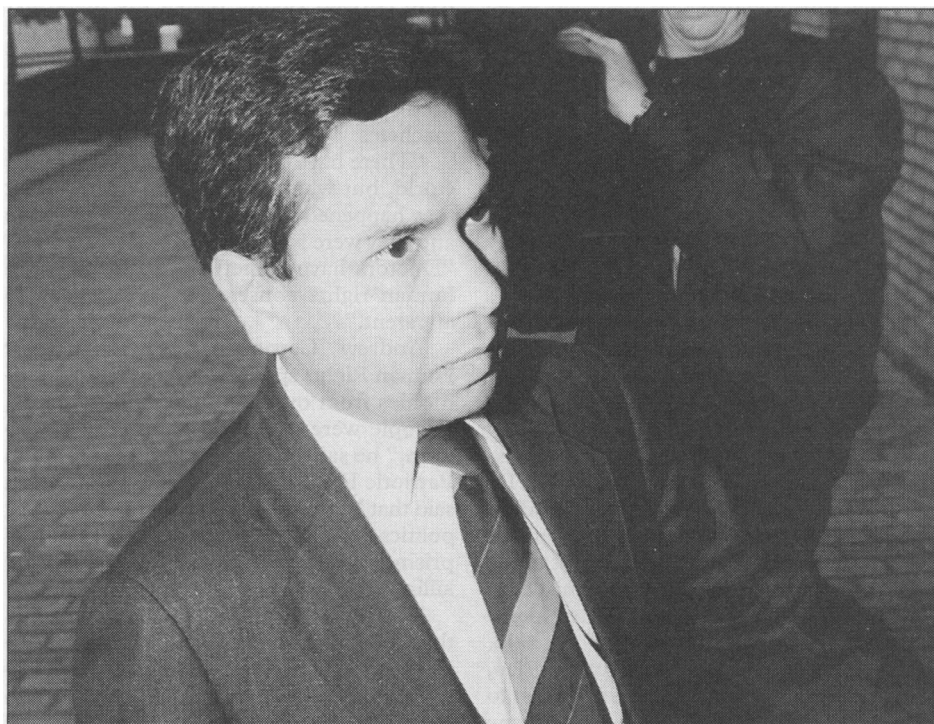
In February 1993, after an outbreak of hepatitis among patients at the Royal London Hospital, he was asked as a former employee to provide a blood sample. Again he submitted a sample of a patient's blood.

His deception came to light in August 1993, when blood was taken from him under supervision after an outbreak of hepatitis at the London Chest Hospital. He was suspended and later dismissed but found work through an agency at the Maudsley Hospital and other hospitals in London and the south east.

Last October, while working at the Maudsley, he was arrested and charged. He confessed after being confronted with the results of the blood test done in Leeds in 1990.

Dr Gaud's counsel, Maurice Kay QC, said that his client was full of "real remorse." His career was over, and 20 years of training and experience had "gone down the drain."

Guidance issued by the Department of Health in August last year required all surgeons to be immunised against hepatitis B by the middle of this year and all staff involved in procedures with a risk of infection to be immunised by mid-1995.—CLARE DYER, legal correspondent, *BMJ*



Dr Gaud: sent to prison for putting patients' lives at risk

BROOKS/TIMES NEWSPAPERS

Plague spreads in India but is "under control"

India's epidemic of plague spread across several more states last week, but health authorities in New Delhi say that the situation is now "under control and improving." The number of patients with suspected plague in hospitals across the country had risen to 4 000 by Monday. But laboratory tests showed that a large number of them did not have plague. Gujarat and Maharashtra—the states that first reported the outbreaks last month—account for 3 300 patients. At least 400 patients are in the Infectious Diseases Hospital in Delhi, and the rest are distributed over seven other states.

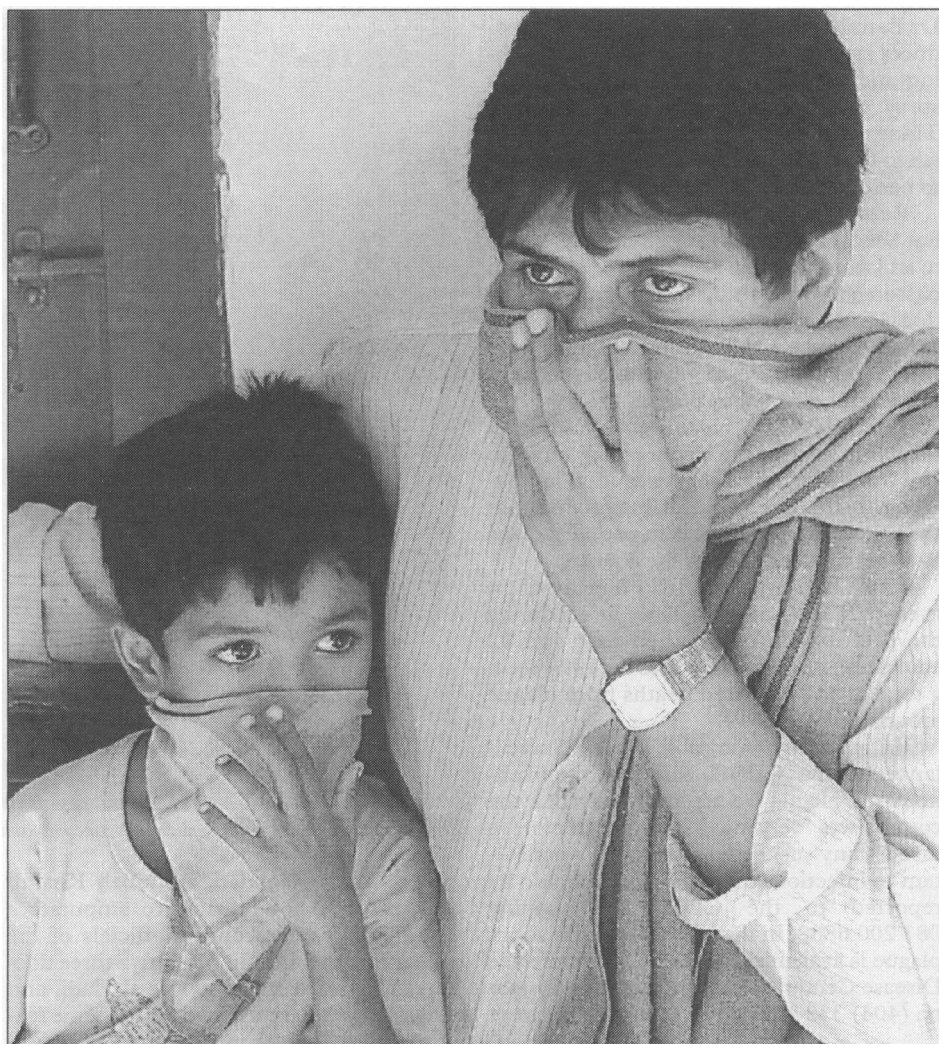
Although health authorities have attributed the spread of the infection to the exodus of people from Surat, where pneumonic plague first surfaced two weeks ago, epidemiologists are still puzzled by the patterns of incidence across the country. Maharashtra has reported 2 100 cases of bubonic plague, while other states have been struck by the more serious pneumonic variety.

One reason for the high influx of suspected cases at the Infectious Diseases Hospital is that doctors have been referring many patients with high fever, cough, and chest pain to the hospitals reserved for cases of plague. Staff suspect that a large number of patients with other illnesses, including tuberculosis, pneumonia, and even malaria, have arrived in such hospitals. "It is becoming clear that all patients admitted here do not have plague," said a doctor at the Infectious Diseases Hospital.

The National Institute of Communicable Diseases has so far confirmed only 21 cases of bubonic plague in Maharashtra and 30 cases of pneumonic plague in Delhi and 28 in Surat. Officials of the Directorate General of Health Services say that the epidemic is likely to subside over the next two weeks.

The standard response has been to admit patients with "plague-like symptoms" to hospital and begin treatment with tetracycline and streptomycin. On Monday the number of people who had died of plague stood at 50—all but four from Surat. Health authorities say that all the patients who had died had not received adequate treatment. Patients' response to treatment with tetracycline seems to be good, and the government has made arrangements to distribute an extra 10 tonnes of tetracycline hydrochloride, the raw material for the antibiotic, to drug manufacturers across the country.

Doctors are, however, concerned at the lack of information on the micro-organisms that are believed to be responsible for the outbreak. Tetracycline might not be the best drug available today to combat *Yersinia pestis*, but there are no data on the efficacy of the new range of antibiotics. "Culturing this micro-organism and testing its sensitivity needs top priority," said Ashok Rattan, a microbiologist at the All India Institute of Medical Sciences in New Delhi. Tests of drug sensitivity will take another week.



Waiting for treatment in Delhi

The epidemic has also brought into focus the role of India's private medical sector in a health emergency. Although private doctors have increasingly been participating in public education campaigns over the past week, some doctors joined the exodus when the epidemic first broke out in Surat. Residents burnt down some private clinics abandoned by doctors, and this week a local voluntary organisation filed a criminal case against 70 doctors accusing them of abandoning the population.—GURU NANDAN, science writer, New Delhi

Plague prompts worldwide action

Health officials at airports around the world have responded to the outbreak of plague in India with measures ranging from screening passengers on arrival to banning all incoming flights from India (see editorial on p893). At London's Heathrow airport last week port health inspectors were boarding all incoming flights to spray the atmosphere with an insecticide, pyrethrin, before passengers were allowed to disembark. Baggage was also being sprayed. All passengers were being issued with a pamphlet in various languages summarising the symptoms of plague

and urging anyone feeling ill during the next three days to seek medical advice immediately.

Dr George Stewart, principal medical officer at Heathrow, said that airport staff such as immigration officers, as well as cabin crews, were being asked to be on the alert for "anyone looking peaky." He said: "This is the biggest event in terms of public health precautions since I have been here, and I think the media hype has rather got out of hand. Really our standard operating procedures should be adequate. Spraying of planes, for instance, is supposed to happen after flights from all malarious areas anyway."

The Department of Health in Britain has sent instructions on dealing with suspected cases of plague to all general practitioners, and last week the chief medical officer, Dr Kenneth Calman, issued a statement saying: "Should any cases be confirmed they will be treated effectively with routinely available antibiotics. It is rare for plague to be transmitted person to person." Dr Calman said that a number of people had been identified who might be infected. Some had been allowed home.

Dr Barbara Bannister, consultant in infectious and tropical diseases at the Royal Free Hospital in London, said that the last known case of plague in Britain occurred in 1918, probably as the result of someone returning from overseas duty with the Army.

Dr Bannister said: "A person infected produces large sputum particles during coughing and sneezing, as opposed to the fine spray produced in some other diseases. These particles are quite heavy and likely to fall to the ground within a few feet, so person to person infection is much less likely."

Reaction in other countries has varied, but Saudi Arabia last week stopped all flights to and from India. In South Korea checks on passengers from India were being intensified, with quarantine officers spraying planes. France is monitoring all flights from India, and the US is monitoring flights from those areas affected by plague.

The World Health Organisation promptly issued advice concerning travel to and from India, counselling caution in travelling to the city of Surat but saying that there need be no changes in people's plans to travel to other parts of the country.

The WHO was notified officially of an average of 1500 cases of plague a year during the past decade by between nine and 12 countries. Provisional figures for 1993 show a total of 151 reported deaths from plague around the world.

Britain's Communicable Disease Surveillance Centre (CDSC) said that the likelihood of plague being imported into the country was "very low." It advises doctors to discuss any suspected cases with a consultant in infectious diseases. Cases should be reported to the CDSC by phoning 081 200 6868. In the US information about plague is available from the Communicable Disease Center's Voice Information System on (404) 332 4555. —CLAUDIA COURT, *BMJ*

Iraqi doctors face climate of fear

Doctors in Iraq say that one of their colleagues has been executed and several others have been imprisoned for refusing to cut off limbs or ears as a punishment for lawbreakers. The pressure on doctors to perform such operations comes against the background of growing difficulties in the day to day practice of medicine caused by shortages of drugs.

The amputation of hands and legs was introduced in June for Iraqis caught stealing. In the last week of August Decree No 115 issued by Saddam Hussein's Revolutionary Command Council stated that army deserters and people evading military service would have their ears cut off and their foreheads tattooed with a 2.5 cm by 5 cm mark.

Iraqi doctors were appalled and angered at the order and decided among themselves that they would refuse to carry it out. But they abandoned their protest when the Baghdad authorities threatened them with mass arrest. Another decree of the Revolutionary Command Council, No 117, warned doctors that their own limbs or ears would be cut off if they tried to remove tattoos or reattach severed parts of the body.

Some doctors have stuck to their principles and paid a heavy price. According to



Iraqi people are lacking basic medicines as sanctions continue to bite

reports from Baghdad, Abdullah Khalidi was executed for refusing to amputate a hand and for confronting officials of the ruling Ba'ath party. In Nasseriya three doctors, Yahya al-Khafaji, Rabie al-Hadi, and Ali Issam, were imprisoned for the same reason. Other doctors in Iraq have gone into hiding to avoid carrying out orders. In Nasseriya a doctor was shot dead by angry relatives of an amputee. "We are damned either way," an Iraqi doctor said.

The doctors' dilemma over the issue of punishments is only part of their daily burden. The dominant problem is the shortage of drugs and medical supplies, compounded by a sharp fall in the value of the Iraqi dinar over recent weeks. This has put available stocks out of the reach of most of the population. Under the terms of United Nations sanctions against Iraq, medicines are allowed to be imported. But the private import of drugs is banned, and doctors say that the Iraqi government, itself chronically short of money, is not allowing in enough. The government also distributes medical supplies, and priority is given to senior party officials and the army.

"Even the most basic things like ear drops and antibiotics are in desperately short supply," an Iraqi doctor said. One Iraqi exile tried to find people who were prepared to smuggle eye drops to his 80 year old mother in Baghdad. "She is badly in need of an operation," he said, "but they are so short of anaesthetics that only emergencies are being carried out."

Doctors in Iraq say that they expect life to get more difficult. With no sign of the UN sanctions being lifted and the economy getting into deeper difficulties each day, the shortage of basic medicines is bound to become more serious. —GERALD BUTT, freelance journalist, Nicosia

Surgery best to prevent strokes, say US researchers

Researchers in the US announced at a press conference last week that they had stopped a trial that tested carotid endarterectomy against medical treatments in patients without any symptoms. Last Friday officials at the National Institutes of Health announced that a large multicentre trial had been stopped two years early because they had found that surgery reduced the relative risk of stroke by 55%.

About 550 000 strokes occur each year in the US, and about 91 000 carotid endarterectomies are performed. Many of the operations are carried out on patients with evidence of stenoses but without symptoms of transient ischaemic attacks. In the past no major study has shown surgery to confer greater benefit than various anticoagulant treatments.

The five year rate of fatal or non-fatal stroke was 4.8% among patients who underwent surgery and 10.6% among patients who were given medical treatment—an absolute risk reduction of 5.8%. (In other words, about 17 operations would have to be performed to prevent one stroke.) Men fared better than women, with a relative risk reduction of 69% compared with 16% in women. The confidence intervals for the women's data were wide because fewer women were enrolled.

The 39 centre study is called the asymptomatic carotid atherosclerosis study. It enrolled 1662 people who had stenoses greater than 60% and was limited to surgeons who had previously had complication rates below 3%. Officials of the study cau-

tioned that many centres in the US have no surgeons with rates so low, so that the results of the study are not fully generalisable even if they hold up after further analysis and review.

But few hospitals release such data to patients. One of the leaders of the study, neurosurgeon James T Robertson of the University of Tennessee, deplored such secrecy. "Patients have the perfect right to ask the doctor who may operate on them what his record is," he said.—JOHN ROBERTS, North American editor, *BMJ*

Doctors pass off spoof research as fact

A group of Dutch doctors is attempting to pass off spoof scientific research as fact in an attempt, they claim, to show the thin line between truth and fiction in medicine. One regional Dutch newspaper has already published a fake article, believing it to be true, about a "gene bus" that the public could attend to test their genetic predisposition to fatal diseases. It stated that the results of tests for Alzheimer's disease were kept secret because "the high percentage could cause social unrest in the village."

The story appeared in the *Leeuwarder Courant*, Friesland's main newspaper. It was then picked up by the national newspaper *De Telegraaf*, which realised that it was a spoof and withdrew the story before publication.

Leading figures in Dutch medicine have attacked the fake research as sick and likely to cause confusion among patients. But several thousand copies of a book containing the spoof scientific papers are to be sent out as free gifts from pharmaceutical companies to doctors, and copies have also been sent to university hospitals. The pharmaceutical companies are distributing the book as entertainment for doctors.

One of the spoof papers was sent to the *BMJ*. It concerned patients due to have arthroscopy, whose surgeons had agreed to plan intervention for the wrong knee to see how long it took before the error was detected. The authors reported that one patient received surgery on the wrong knee. The paper was rejected by the *BMJ* as unethical.

The spoof book, entitled *Nieuw Tijdschrift voor Geneeskunst* (New Journal for the Art of Medicine), draws heavily for its name, layout, and typeface on the Netherlands' leading scientific medical publication, the *Nederlands Tijdschrift voor Geneeskunde* (Dutch Journal of Medicine). It includes articles under false names about spurious research on such topics as hair growth after death; passive drinking and liver cancer; and the "siamese penisbel," about the reintroduction of jade as an implant material. A group of about 40 doctors contributed to the book, though the idea is mostly the work of dermatologist Dr Jannes van Everdingen. He said that the real *Dutch Journal of Medicine*

should be "proud" that it was so well known that he should want to copy it. But Dr John Overbeke, one of two executive editors of the *Dutch Journal of Medicine*, said that he did not want the book published in its present form as the resemblance could harm his journal's good name. "We don't think this is very funny," he said. "But so long as it is read by professional doctors I think most of them will see very quickly that it is not our journal."

Professor Arend Dunning, a cardiologist and chairman of the board of the *Dutch Journal of Medicine*, told a national newspaper that the imitation of medical research was disgraceful and unworthy and would confuse patients.

Dr Everdingen said that he was surprised at the response to his spoofs, calling it "bombastic." "We want to show that the difference between truth and untruth is very small and that that difference is difficult to see when a doctor looks at a medical journal." He claimed to have sent the paper to the *BMJ* as a spoof for the journal's Christmas issue.—TONY SHELDON, freelance journalist, Utrecht

Russia loses blood

A chronic shortage of blood is adding to the problems of Russia's overstretched state health service. Stocks at some hospitals are as low as one fifth of normal levels, and the relatives of patients brought in for surgery are now routinely asked to supply blood. It has become so bad that medical staff often have no alternative but to give their own blood to patients. "There are only a few donors, and medical institutions face major hardships in obtaining blood and its components," said Alisa Brodskaya, head of the

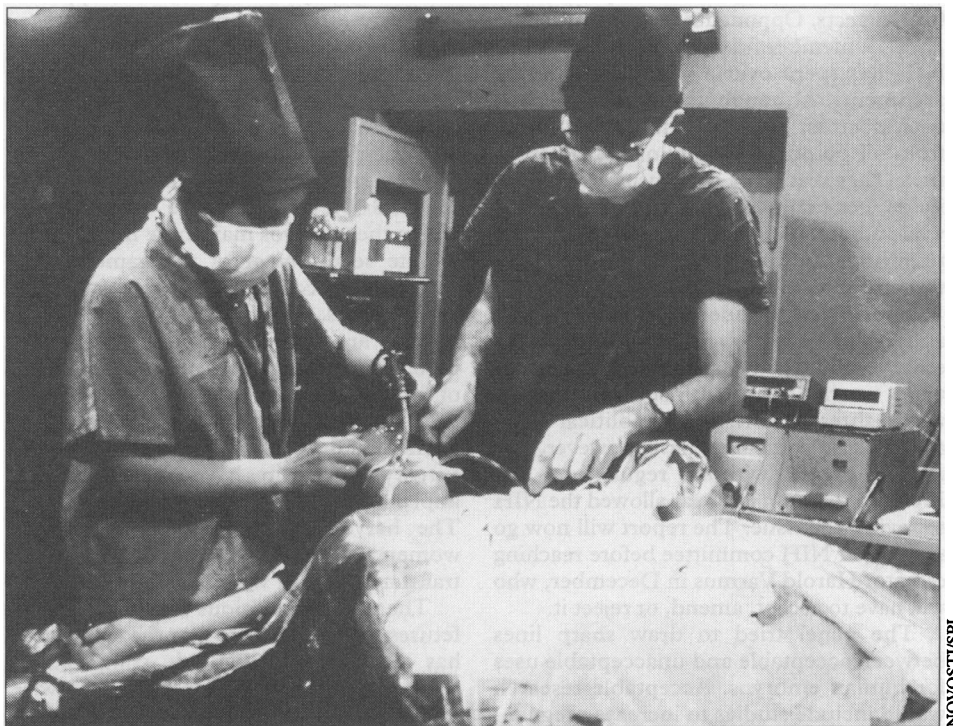
donor department of the Central Moscow Blood Transfusion Station. "We used to go around the state enterprises, and people used to respond very well. Not any more."

The situation at her station illustrates the gravity of the problem: in the past the station used to process some 300-350 donors a day. Now the staff are happy when they get 100 donors. As the crisis worsens, hospitals are being forced to rely on their ingenuity: at hospital number 36, in the east of Moscow, young recruits from a nearby army base are ordered to give blood when required. At children's hospital number 20 the chief doctor, Maya Konstantinova, says that it is often down to doctors and other medical staff. "We all know who on the staff has which group and which rhesus factor," she said. "Of course we give blood when it is needed."

The crisis reflects the problems afflicting not just Russia's health system but society as a whole. In the Communist days, giving blood was treated as a patriotic duty. Workers lined up to donate a few hundred millilitres in return for a couple of days off work and extra dinner money. Now that the country is moving towards its own form of wild capitalism, attitudes are changing. "People do not want to give blood for free. With living standards falling, most donors think that they should be paid for this," said Inessa Semishina, a top official at the Ministry of Health.

Many potential donors are also put off by poor hygiene levels. An incident a few years ago in which a whole ward of children was infected with HIV after they were all injected with the same syringe is still remembered.

Semishina said that the shortage was most serious in major cities such as Moscow and St Petersburg. It is there, too, that demand is increasing most sharply. A dramatic rise in the past few years in the num-



Surgeons may have to give blood before they can operate

NOVOSTI/SPL

ber of cars on the roads of Moscow and poor driving standards have given the city one of the worst accident rates in Europe.

The drop in donors has also raised concern over the quality of much of the blood that is used. Officials say that an increasing proportion of donors are alcohol misusers and drug addicts lured by the introduction of new payments equivalent to £2 or £3. —PETER CONRADI, Moscow correspondent, *European*

New Zealand fights domestic violence

New Zealand is to tighten up its laws against domestic violence. Psychological abuse, intimidation, and harassment will be grounds for the courts to grant a new protection order that will combine the existing non-molestation and non-violence orders.

The minister of justice, Mr Doug Graham, said that he did not think that

judges would have difficulty in deciding what warranted an order. "It might be endless phone calls or standing outside a house all day," he said.

The tougher measures follow recommendations made after an inquiry into a domestic tragedy in last February. A father killed himself and his three young daughters after a prolonged custody battle. The family court had heard evidence of his violence against his wife, but he was still regarded as a devoted father and given custody of the children.

Under the new law, in child custody cases in which a court is satisfied that violence has been used against any member of the family the perpetrator will have more difficulty in gaining access to the children. Anyone breaching an order may be arrested, in which case they will automatically be ineligible for bail for 24 hours.

The new law will also increase the penalties for breaching an order to a maximum of two years in prison or a fine of NZ\$10 000 (£4 000), or both. The community clearly supported tougher legislation, said Mr Graham. "There is sufficient evidence of violence in the community, particularly in

domestic circumstances, where we have to do this," he said.

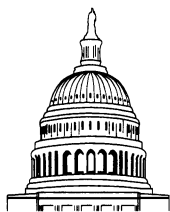
The new legislation was announced after the violent deaths in domestic circumstances of five children, one aged 5 and four aged under 2, in the past four weeks. The former commissioner for children, paediatrician Dr Ian Hassell, said that the deaths should focus everyone's attention on family violence and how parents were left to rear children without continuing support.

"I think we are a country which has isolated people who are responsible for children more than is healthy," said Dr Hassell. The new commissioner for children, Mr Laurie O'Reilly, said that an independent agency to investigate children's deaths was needed.

A spokesman for Men for Non-Violence, Mr Stephen Jacobs, welcomed the proposed legislation. "The new legislation will make it clear to men who are violent or abusive that there are now serious consequences for that behaviour, a major one being the loss of access to their children until they can prove that the children will be safe with them," he said. —CHARLES ESSEX, community paediatrician, Auckland

Focus: Washington

A fragile compromise on embryo research?



Last week the National Institutes of Health took its first step towards ending a 15 year ban on funding research on human embryos. Supporters say it will eventually decrease

birth defects. Opponents say it is murder.

A 19 member ad hoc committee of the NIH has spent over a year reviewing the arguments. Although its members—scientists, doctors, ethicists, and others—came from all points of the philosophical spectrum, they reached a consensus on difficult issues. For example, the committee says that while a human embryo "possesses qualities requiring moral respect" it "does not have the same moral status as infants and children."

For 15 years, under Presidents Reagan and Bush, the NIH would not fund human embryo research because the Republicans were worried that antiabortion activists would threaten their fragile political coalition. Private companies have, however, carried on work without regulation, and President Clinton last year allowed the NIH to review the issue. The report will now go to another NIH committee before reaching director Harold Varmus in December, who will have to accept, amend, or reject it.

The panel tried to draw sharp lines between acceptable and unacceptable uses for human embryos. Acceptable research would include studies to increase pregnancies in infertile couples; basic research on

fertilisation; research to gain insight into the development of genetic anomalies; and a wide variety of research (mostly cancer studies) to determine how early embryonic cells differentiate into various tissues and organs. Once an embryo reaches 14 days old, however, research must stop "with very rare exception." At 14 days the primitive streak, the nervous system's precursor, appears. Among research the committee deems unacceptable is cloning of embryos to transfer them into women's uteruses, sex selection, cross species fertilisation, and transfer of human embryos into other animals for gestation.

Though the uses for embryos are clearly controversial, the issue that has generated at least 18 000 letters to the committee is where the embryos may come from. In the private sector most of the gametes and embryos have come from in vitro fertilisation programmes, where many more extra oocytes are fertilised than are eventually used. The panel supports that source as one of the best, although it wants the sale of such products prohibited. Other sources could be women undergoing other types of pelvic surgery but who have early embryos implanted (but only with informed consent). The harvesting of embryos from dead women also would be allowed, but not for transfer into other women's uteruses.

The most contentious source is aborted fetuses, and it was here that the committee has reached its Solomonic compromise. Such harvesting, it says, would be "unwise public policy," acknowledging the divisiveness of the issue in the US. In fact, that one

point caused 27 members of Congress to write to the panel. Another issue they raised was parthenotes, embryos created by the union of oocytes, which thus lack genes from sperm cells. Most experts agree that such embryos could not develop far along into gestation. But the congressional representatives warned: "This creation of new life for the purpose of vivisection will be abhorrent to many Americans."

Such comments were expected from Republicans, conservatives, and antiabortionists. But even liberals have spoken out. Last Sunday, the *Washington Post* came out against the committee's recommendations: "The creation of human embryos specifically for research that will destroy them is unconscionable. The government has no business funding it." The *Post* cited committee member Patricia King of Georgetown University, who wrote that "society has not yet 'developed a conceptual framework to guide us' when 'human life is being created solely for human use.'" This, the *Post* said, stands in contrast to debates over contraception and abortion. But the committee does have its supporters. Bioethicist John Fletcher of the University of Virginia pointed out that young children with cancer are routinely placed on experimental protocols involving extremely toxic drugs: "It does a terrible disservice to these children if we expect them to take part in cancer research and then we shy away from doing the embryo experiments necessary to understand how their cancers began." —JOHN ROBERTS